

B.0659R^{EXT}

CLAIMS

- 1/ Electric household appliance for preparation of food (1),
5 having an electric motor (3) able to drive a rotary tool (10)
at a variable speed, a monitoring/control device (5)
comprising means to cause the motor to operate according to at
least a first operating mode and a second operating mode,
means to evaluate the load or the resistive torque (C_1 , C_2 , C_3)
10 applied to the motor, and means for automatically switching
the operation of the appliance from the first operating mode
to the second operating mode when said load passes below a
first predetermined threshold (S_B), and in which, when the load
passes from a value higher than the first threshold (S_B) to a
15 value lower than the first threshold (S_B), the speed of
operation of the appliance decreases, characterized in that
the monitoring/control device (5) also comprises means to
automatically switch the operation of the appliance from the
second operating mode to the first operating mode when said
20 load again passes above a second predetermined threshold (S_H),
and in that when the load passes from a value lower than the
second threshold (S_H) to a value higher than the second
threshold (S_H), the speed of operation of the appliance
increases.
- 25 2/ Appliance according to claim 1, characterized in that when
the load passes from a value higher than the first threshold
(S_B) to a value lower than the first threshold (S_B), the speed
of operation of the appliance decreases by at least 5%.

3/ Appliance according to claim 1 or according to claim 2, characterized in that when the load passes from a value lower than the second threshold (S_H) to a value higher than the second threshold (S_H), the speed of operation of the appliance
5 increases by at least 5%.

4/ Appliance according to one of claims 1 to 3, characterized in that the predetermined load thresholds for the automatic reduction (S_B) and/or increase (S_H) of the speed of the motor, depend on the initial speed value.

10 5/ Appliance according to one of claims 1 to 4, characterized in that the predetermined thresholds (S_B , S_H) are identical for the reduction and automatic increase of the speed.

6/Appliance according to one of claims 1 to 5, characterized in that it has means to additionally decrease the speed when
15 the load (C_3) remains below the predetermined threshold for the reduction of the speed for a predetermined length of time.

7/Appliance according to one of claims 1 to 6, characterized in that the assigned speed after reduction is a function of the measured value of the load.

20 8/Appliance according to one of claims 1 to 7, characterized in that the means to detect the load applied to the motor include means (15) to measure the electrical current consumed by the motor, or the voltage at the terminals of the motor
(3).

25 9/Appliance according to one of claims 1 to 8, characterized in that the means to detect the load applicable to the motor include means for measurement of the acoustic noise generated by the appliance.

10/Appliance according to one of claims 1 to 9, characterized in that the speed of the motor is reduced to a non-zero value when the load passes below the first predetermined threshold (S_B).

- 5 11/Appliance according to one of claims 1 to 10, characterized in that the speed of the motor is reduced by at least 15% when the load passes below the first predetermined threshold (S_B).

- 12/Appliance according to one of claims 1 to 11, characterized in that the speed of the motor is reduced by at least 30% when
10 the load passes below the first predetermined threshold (S_B).

13/Appliance according to one of the claims 1 to 12, characterized in that the electric motor (3) is a universal motor.